

March 2010

# Technical Update

## **Use of MOE Component Values in Risk Assessments Submitted under the Record of Site Condition Regulation (O. Reg. 153/04)**

The purpose of this technical update is to provide Qualified Persons for Risk Assessment (QPRAs) with guidance on the use of MOE component values when performing risk assessments submitted under O. Reg. 153/04. This Technical Update provides an update to some aspects of the guidance originally included in the 2005 Procedures document (Procedures for the Use of Risk Assessment under Part XV.1 of the Environmental Protection Act, October 2005).

### **What are MOE Component Values?**

The Tables of Site Condition Standards were developed through the use of a number of component values to derive the final risk-based generic value. For each contaminant, a risk-based value was determined for each specific exposure pathway to provide protection to a receptor or group of receptors. Each of these values is known as a component value. The numerically lowest value from all of these component values, which are relevant to a specific land use/potability/depth class, is then used as the Site Condition Standard, after adjustments for detection limit and background. For example, a soil standard could be driven by the component value that protects the aquatic environment from a contaminant that leaches through the soil to the groundwater and then migrates into surface water (i.e. the S-GW3 component).

### **Use of MOE Component Values from the 1996 Rationale Document**

QPRAs can continue to use MOE component values originally developed in the 1996 Rationale Document for Records of Site Condition (RSCs) that are filed prior to **July 1, 2011**. This includes the use of component values in limited scope risk assessments.

However, the QPRA should note that more recent science and site-specific considerations may lead to a conclusion that the component values from the 1996 Rationale Document are not protective of human health and the environment for a particular site. For this reason, the QPRA should always describe the justification process being relied upon when selecting component values. Particular attention should be paid to situations where there are substantial numerical differences between the 1996 and 2009 component values.

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In order to ensure the continued protection of human health and the environment, the MOE may, on a case by case basis, request additional justification regarding the use of component values.

### **Additional Considerations for the QPRA**

#### Use of Current Science

When submitting a risk assessment under O. Reg. 153/04, it is the MOE's expectation that the conclusion of the risk assessment be based on current science.

#### Use of MOE Component Values from the 2009 Rationale Document

The component values from the 2009 Rationale Document (*Rationale for the Development and Application of Generic Soil, Groundwater, and Sediment Criteria for use at Contaminated Sites in Ontario*, dated December 22, 2009) are considered to be current science by the MOE as of the date of this Technical Update. For this reason, QPRAs may use the 2009 component values in a risk assessment. The 2009 Rationale Document is available here:

<http://www.ene.gov.on.ca/publications/7386e.pdf>

### **Limitations**

Regardless of which component values are used in the risk assessment, it remains the QPRA's responsibility to ensure that the mandatory certifications made in the appendix of the risk assessment report are accurate.

This Technical Update applies only to risk assessments submitted under O. Reg. 153/04 and may not be appropriate for other assessments conducted outside of O. Reg. 153/04.

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